### Soquel Demonstration State Forest

### 2010 Annual Report



Rich Sampson Acting Forest Manager

State of California
DEPARTMENT OF FORESTRY AND FIRE PROTECTION

CAL FIRE

Northern Region
San Mateo-Santa Cruz Unit (CZU)

Santa Cruz County



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### **ADMINISTRATION**

Rich Sampson, Unit Forester, continued to be the acting Soquel Demonstration State Forest (SDSF) Manager. He filled in part-time in addition to his other duties for the San Mateo-Santa Cruz Unit (CZU). The Forest Manager position has been vacant to achieve salary savings since Thomas Sutfin retired in July, 2009. Other staff were: Assistant Forest Manager, Ed Orre, half-time Office Technician, Anna Cameron, and Forestry Aide, Julie Dufresne, who began work on August 2<sup>nd</sup>. The Forest continued to function with a limited budget. The operating budget was restricted to only mission-critical expenditures.

Work began on the first update of SDSF's General Forest Management Plan since its original approval in 1998. Helge Eng (State Forest Program Manager) and Jill Butler (Regional State Forest Staff) led this effort. A news release, letters and other documents were mailed in July to announce the re-activation of the Soquel Forest Advisory Committee which will review updates to the General Forest Management Plan. A letter from the Unit was sent to the CAL FIRE Director listing the recommended candidates for the Advisory Committee. The first meeting of this group is expected to take place in 2011.



Ben Lomond Conservation Camp Fire Crew performing fuel reduction along Hihn's Mill Road

Fire Crews from the Ben Lomond Conservation Camp crews performed roadside brushing and culvert cleanout work in early spring along Hihn's Mill Road with two SDSF volunteers acting as sponsors. In March, Fire Crews burned piles of brush from a clearing around a research rain gauge.

Roadside brushing and culvert cleanout resumed from August through December along additional SDSF roads with Dufresne as the Sponsor. After December 1<sup>st</sup>, fire crews began burning piles of brush and invasive plants created previously. Crews also planted approximately 100 redwood and Douglas-fir seedlings in an attempt to shade out areas dominated by invasive plants. These seedlings were obtained last winter from the CAL FIRE Magalia Nursery and

represented the last seedlings grown for our seed zone before the nursery closed. Ben Lomond fire crews worked on the Forest for 44 days.

Road maintenance with a small tractor was performed by local contractor Dave Mohrmann in November. Dufresne supervised the essential maintenance of rolling dips, waterbars and associated lead-outs prior to the winter period on Hihn's Mill Road, Sulphur Springs Road, and Amaya Creek Roads.

Sampson and Orre met with a representative of an adjacent landowner (Redwood Empire) to discuss the Forest's public access easement across their property. SDSF's main entrance and parking area are located on this parcel. Issues discussed included concerns of Water Quality, road damage by public users during the winter period, condition of the Highland Way Bridge and access, and trespass issues related to rouge mountain bike trails.

Sampson, Orre and Cameron worked with Verizon to remove an unused and unsafe phone line that crossed SDSF land. This phone line was originally fastened to trees along Comstock Mill Road, but lack of maintenance over many years allowed the wires to lie across the road in many places creating a safety hazard.

Contract Archaeologists conducted a site survey in July of the SDSF office and Soquel Forest Fire Station compound as part of the State's Capital Improvement Plan.

Orre assisted Ben Lomond Camp by felling several madrone hazard trees that threatened a state housing unit.

An engine crew assisted SDSF staff by cutting weeds and brush around an uninhabitable structure on State land.

CAL FIRE Surveyors conducted a survey of the parcel containing the SDSF office and Soquel Forest Fire Station. This work was performed for the State's Capital Improvement Plan. Surveyors also relocated and monumented SDSF's parking area easement on Burch property.

SDSF's vehicle and portable radios were reconfigured to narrow- band to be consistent with State requirements.

The SDSF brochure and map for the public received minor revisions.



SDSF Staff: Assistant Manager Ed Orre, Office Technician Anna Cameron and Forestry Aide Julie Dufresne

Precipitation total on the Forest for the calendar year was 46.70 inches. This is 108% above the 1878-2003 average of 43.11 inches, and 125% higher than the 1984-2010 (25-year) average of

37.32 inches. Several winter storms knocked down trees across various SDSF roads which required Orre to clear them.

### **TRAINING**

Orre, Dufresne and two SDSF volunteers attended annual sponsor training at the Ben Lomond Conservation Camp. This training is required by CAL FIRE and the Department of Corrections and Rehabilitation for all personnel who work as sponsors with a fire crew on projects.

Dufresne attended a training exercise on how to interact with helicopters on short-haul rescues. Orre attended Resources Unit Leader /Demobilization Unit Leader (ICS S-347/348) training and a Fire Suppression Repair Workshop.

On July 29<sup>th</sup>, SDSF hosted an Anadromous Salmonids Protection (ASP) training workshop on the Forest with 25 attendees from over five local, state and federal agencies. The workshop was lead by Pete Cafferata, CAL FIRE Hydrologist.

In May, Orre provided two days of chainsaw training (S-212) to Fire Captains assigned to Ben Lomond Conservation Camp.

In July, SDSF hosted off-pavement driver training on several days for local agency Type 3 fire engine operators. Over 30 engines from CAL FIRE, Central Fire District, Aptos-La Selva Fire and Branciforte Fire participated. This training was coordinated by Jake Hess, Training Bureau Battalion Chief for the San Mateo-Santa Cruz Unit. This exercise allowed local fire personnel to become oriented with SDSF's road system in case of a wildland fire or a rescue on the Forest. In addition, this exercise resulted in local agency crews gaining experience in off-road vehicle operations with their own equipment.

Fire crews from the Ben Lomond Conservation Camp conducted occasional informal fire training and physical fitness exercises on SDSF.

Monterey Bay Search Dogs (MBSD) conducted several daytime search-dog training activities in the Forest. MBSD is affiliated with the Santa Cruz Sheriff's Department Search and Rescue Team and the California Task Force 3 Urban Search and Rescue team.

### TIMBER MANAGEMENT

Orre continued working on the Fern Gulch Timber Harvesting Plan (THP) (1-09-096-SCR) and timber sale appraisal. A focused Pre-Harvest Inspection (PHI) was held in March to resolve issues over specific stream crossings and a stream bank failure along an appurtenant road. Additional information was submitted on Green House Gas calculations with help from Eng and Jeff Leddy, CAL FIRE Biometrician. A 2006 stream bank failure which threatens an appurtenant road was a major issue during review of the THP. Another major issue pertained to the use of a wet ford on Soquel Creek at Longridge Crossing because a permanent bridge does not exist at this location.

Orre worked with Leddy on the Option "A" Plan, and with Michael Huyette, Engineering Geologist with the California Geological Survey (CGS) on various geological issues pertaining to the THP. Orre updated the THP to conform to the newly-adopted anadromous salmonid protection (ASP) rules, added an alternate appurtenant road, updated the Confidential Archaeological Addendum with a new site found along an appurtenant road and responded to numerous Review Team recommendations. This THP was approved in March of 2011.

A botanical survey was conducted in the Fern Gulch THP area by Tim Hyland, a consulting botanist. No listed species were found.

Orre and Dufresne worked with Clay Brandow, a CAL FIRE Hydrologist, on preparing an application for a waste discharge waiver to the Central Coast Regional Water Quality Control Board for the Fern Gulch THP.

Orre worked on setting up a Raptor Survey agreement with a consulting biologist for 2011 as required for both the Fern Gulch and Rim THPs.



Assistant Manager Ed Orre surveying old-growth tree in the Fern Gulch THP area

James Kral, Mountain Home DSF Forest Manager, prepared the Rim THP (1-09-107-SCR) on the Forest, and Leddy assisted with the timber sale appraisal. The Rim THP was approved on September 7<sup>th</sup>. A "show-me" pre-bid field trip for prospective bidders was held on September 23<sup>rd</sup>. The opening date for bids was changed from October 11<sup>th</sup> to December 10<sup>th</sup> to accommodate prospective bidder's requests. On December 10<sup>th</sup>, the higher of the two bids was received from Sierra Pacific Industries. Their bid for 1.823 million board feet of redwood and 3.3 thousand board feet of Douglas-fir totaled \$690,983. Timber operations are scheduled to start on May 1, 2011. Orre worked with Chuck Whatford, CAL FIRE Northern Region Archaeologist, to finish an outstanding archaeological site record in the Rim THP area. Orre also worked with Greg Waas, the Unit's Water and Sewage Treatment Plant Operator (WASPO), to design a water source at neighboring Camp Loma to be used during operations.

Timber harvesting was conducted by Redwood Empire on the adjacent Burch property, including along SDSF's easement for Hihn's Mill Road and around the parking area. This activity required temporary closures of Hihn's Mill Road to recreational access. Hauling was completed in the summer.

Thirteen firewood permits (Class 1 Timber Sales) were issued this year for a total of 23 cords and \$230. All firewood permits terminated on October 15<sup>th</sup> because of a General Forest Management Plan prohibition on winter operations.



Multiagency Inspection in Soquel Creek for Streambank Failure Project

### RESEARCH

Orre consulted with various fishery experts from NOAA Fisheries (aka the National Marine Fisheries Service (NMFS)), the local Resource Conservation District (RCD), the Natural Resources Conservation Service (NRCS) and private consultants on a combination streambank stabilization repair and an instream habitat improvement project for the Fern Gulch THP. In August, these two projects were separated from the THP and CAL FIRE Deputy Director Bill Snyder initiated a Memorandum of Understanding (MOU) with NMFS to pursue a project that would create instream habitat structures using large woody debris (LWD) at several locations. Scoping and organizational field meetings were conducted in September and November. Pete Cafferata, CAL FIRE Hydrologist, was appointed to manage this project with input and assistance from CAL FIRE, NOAA Fisheries, CGS, the California Department of Fish and Game (DFG), the NRCS and the RCD.

Dr. Brook Kraeger, a local hydrologist and civil engineer, continued collecting data from rain and stream gauges on the Forest for a stream flow modeling study.

NOAA Fisheries conducted the annual electro-fishing survey in September to sample steelhead trout at five stream sites. Five volunteers assisted with the electro-fishing process. Another survey was done in December at one site in the Forest. All fish over 80 mm at the time of capture were tagged with a Passive Integrated Transponder (PIT tag). No fish were given elastomer tags; however, all captured fish were checked for elastomer tags inserted during previous years. Electro-fishing surveys began in 1993 in partnership with the DFG. The 2010 survey data will be analyzed and an annual report of the results will be prepared when staff time allows.



NOAA Fisheries Staff and Volunteers sampling steelhead trout in the East Branch of Soquel Creek

Orre and a volunteer installed stream temperature monitoring devices (Hobos) at six locations on SDSF in June and removed them in November with Dufresne. The data will be analyzed and an annual report of the results will be prepared when staff time allows. Stream temperature monitoring began in 1997 at four sites on SDSF.



Data logger for monitoring seasonal water temperatures in primary streams in Soquel Forest

Doctors Gary A Chastagner and Marianne Elliott, of Washington State University, inquired with SDSF staff about a possible study site on the Forest for investigating the susceptibility/resistance of Pacific madrone to Sudden Oak Death. Chastagner, Elliott and Jack Marshall (CAL FIRE Northern Region Forest Pathologist) visited SDSF to investigate a substantial area of Pacific madrone mortality at one location and coast redwood mortality at another site. The madrone mortality is believed to be caused by *Phytophthora cinnamomi*.

Doug Schmidt from UC Berkeley continued research on two studies related to Sudden Oak Death. One study involves treating tanoak to resist infection from *Phytophthora ramorum* while the other investigates *P. ramorum* spore production from bay trees in an overstory canopy.

No re-measurements were conducted on plots established by Dr. Brice McPherson from UC Berkeley to monitor Sudden Oak Death progression across the Forest.

Dr. Janet Foley from UC Davis returned to study blood-borne disease reservoirs in ticks and small mammals on the Forest. Preliminary results indicated that 6% of small mammals tested positive for Lyme disease (*Borrelia burgdorferi*) and 18% tested positive for Anaplasmosis (*Anaplasma phagocytophilum*).

Dr. Chris Wilmers and Paul Houghtaling of UC Santa Cruz continued work on SDSF as part of the Santa Cruz Mountain Puma Project. This study monitors the distribution and behavior of local mountain lions. In November, Houghtaling, a houndsman and Orre captured a recently-discovered female lion on the Forest and successfully installed a GPS radio collar. In December, they tried unsuccessfully to capture an uncollared male which was photographed on bait station cameras in the Forest.

A group of amateur herpetologists conducted a survey of herpetofauna on SDSF at several locations in December. This effort represented the first formal survey for herps in the Forest. The group was led by CAL FIRE Captain Lawrence Erickson and sanctioned by the North American Field Herping Association. The group intends to follow up with quarterly surveys as part of a long-term assessment.

Mike Papa, a Graduate Researcher at Cal Poly, San Luis Obispo, defended a thesis entitled "Effects Of Silvicultural Management On Coast Redwood Forest Composition, Density and Structure In Santa Cruz and San Mateo Counties." SDSF was one of the study sites for Papa's research in previous years. Orre attended the online presentation.

### RECREATION

Visitor use of SDSF continued a gradual increase in 2010. Mountain bikers remained the primary recreational visitors. Recreation usage, especially by mountain bikers, was high on good weather days. As wet weather began in the fall, interest in mushroom collecting increased while mountain biking decreased.

The Highland Way parking area located on an easement on Burch property, remained closed to vehicle use since November 2009. The parking area was initially closed for the winter due to water quality concerns and then for timber operations by the landowner (1-09-064-SCR). The parking area was utilized as a log landing during operations. Public access to SDSF through Burch property continued during operations with only brief interruptions. At the end of operations in late summer however, the bridge between Highland Way and the parking area suffered extensive damage to the hand railing. This forced the closure of the bridge to public use until repairs could be made. Sampson discussed repair and improvement options with the bridge's owner (Burch). A preliminary plan to upgrade the bridge railing, deck and gate was estimated to cost \$13,000. The bridge was posted as closed through the remainder of the year. Basic grading and some rocking of the parking area and road through Burch property was conducted in November. The current plan is to bring the bridge up to an acceptable level of safety with work preformed under one of the Timber Sales in 2011.

The Stewards of Soquel Forest, a non-profit organization supporting SDSF educational and recreational goals, continued to be the driving force behind trail maintenance.

Trail maintenance was completed by the Stewards of Soquel Forest on one day in February with 28 volunteers and on one day in May with 24 volunteers. The Stewards conducted one tool maintenance work day in December with five volunteers. Several other scheduled work days were cancelled due to various reasons. Trailwork is normally conducted on six to eight days per year.



Volunteers from the Stewards of Soquel Forest performing trail maintenance

The Mountain Bikers of Santa Cruz (MBOSC) conducted fundraisers in March which raised over \$5,000 to help SDSF restore and improve the Highland Way parking area. Volunteers also conducted a survey of the parking area to create base maps. MBOSC spent a portion of their funds to hire Steve Butler, a local RPF and Certified Professional Erosion and Sediment Control Specialist, to prepare a plan to mitigate erosion concerns and to improve the parking area.

SDSF issued three Special Use Permits for activities on SDSF. Permits were issued to Mike's Bikes, Fox Racing Shox, and Dirt Series.

Specialized Bicycle Components Company continued to donate the costs of a portable outhouse (with servicing) to SDSF visitors. This portable outhouse was located at the Highland Way parking area for most of the year and then moved onto SDSF property when timber operations commenced on Burch property.

In August, a mountain biker had an accident on Corral Trail which required a short-haul by the local CAL FIRE helicopter. This rescue was aided by the recent engine driving exercises on the Forest.

SDSF volunteer, Daryl Breuninger, continued to lead a group of National Mountain Bike Patrol (NMBP) volunteers on the Forest. The NMBP group provides valuable year-round assistance to Forest visitors and SDSF staff in a many ways.

In October, Cameron and Dufresne attended a Fungus Federation of Santa Cruz meeting to brief members on SDSF activities and to issue 42 mushroom gathering permits. A total of 72 personal-use mushroom gathering permits were issued for the year.

### **EDUCATION**

Thomas Sutfin, retired SDSF Forest Manager, led a group of State Park docents on a field tour to discuss sustainable forestry concepts. In June, Sutfin conducted a field trip for the Monterey Bay Aquarium Watsonville Area Teens Conserving Habitat (WATCH) program. This program held field trips to the Forest during several previous years.



Students from the Monterey Bay Aquarium WATCH program visiting Soquel Forest to study sustainable watershed management practices

### LAW ENFORCEMENT

The vacant Forest Manager position resulted in an increased workload for other Unit Law Enforcement and Forest Practice staff members.

Illegal motorcycle use (four separate reports for the year) and garbage dumping occurred periodically on the Forest. The 'No Motorcycles' sign on the sign board on Ridge Trail was torn down in November by vandals and replaced by SDSF staff.

Additional vandalism occurred to an uninhabitable house located on land purchased for a future new public entrance to the Forest.

Several late-night "rave" parties were illegally held at the Highland Way parking area. In August, a rave party resulted in one citation and resulting conviction for trespass and vandalism. In October, a rave party resulted in a participant's car entering Soquel Creek upstream of the Forest. In each case, a lock was cut from the gate on the bridge allowing unauthorized access to the parking area after hours. The State lock at this location was cut on three additional occasions during the year.

CAL FIRE engines provided an emergency response for five medical aids on the Forest for mountain bike related accidents. CAL FIRE engines also responded to a lost dog call and one vehicle lock-out at the Highland Way entrance.

In November, locks for the State Forest office and shop were rekeyed.

Illegal firewood cutting occurred intermittently along Comstock Mill Road. No suspects have been confirmed responsible.

### 2010 CALENDAR YEAR FINANCIAL SUMMARY FOR SOQUEL DEMONSTRATION STATE FOREST

### **Expense Summary**

1. Capital investment in land, timber, buildings, and roads \$0

Operating expenses 2. Labor \$ 152,845

\$ 20,203 Material \$ 6,261 Property Tax

\$ 179,079 Total

### **Revenue Summary**

(Class I Timber Sales) 3. Gross revenues \$230

### **Net Operating Costs**

\$179,079 Total

- \$230 \$178,849

### ANNUAL REPORT OF TIMBER CUT

Soquel Demonstration State Forest

From January 1, 2010 to December 31, 2010

### COMMERCIAL SALES

### Miscellaneous Forest Products - Not Convertible to Board Feet

Kind	Unit	Quantity	Value
Firewood	cord	23	\$230.00
		,	
TOTALS		A REPORT OF THE PERSON NAMED IN	\$230.00

Approved by Sampson	Signature Signature
Title Foreiber I	Title
Date 3-24-2011	Date Submitted

### ANNUAL STATE FOREST REPORT

**STATISTICAL DATA** (attach to annual Narrative Report)

### SOQUEL STATE FOREST Calendar Year 2010

<b>ADMINISTRATION</b>	<u>Processed</u> (number)	<b>Pending</b>
Rights-of-Way	0	0
Leases	0	0
Trespass Cases	0	1

### **PROTECTION**

Fires: Number of Fires: 0 Acres Burned: Person-days Fire Patrol: 40

State Forest Campfire Permits Issued (number): 0

Insects: Number of Trees Treated: 0 Number of Acres Covered: 0

Control Methods Used: none

Disease Involved

Disease: Number of Acres Treated (Contract): 0 none

(State):0 none

Number of Pest Detection Reports Submitted: 0

Hazard Reduction:

Snags Felled or Removed: 0 Acres: 0

Roadsides Treated (miles):

Slash Abated or Cleanup (acres treated): 19

Salvaged (board feet): 0

### **TIMBER STAND MANAGEMENT**

Number of Timber Sales Class III: 1 Class I: 13

**Timber Stand Improvements** 

Trees Pruned: Number of Trees: 0 Acres: 0 Thinning (acres): Acres: 0 Release (acres): Acres: 0 Number of Trees: 100 Planting Acres: 2 Number of Spots: 0 Seeding Acres: 0

Site Preparation for

Natural Seedfall (acres): 0 Planting (acres): 0 Seeding (acres): 0

State Method of Site Preparation: none

### **EXPERIMENTS & DEMONSTRATIONS**

Submitted **Approved Completed Studies** 

Approved Studies Worked on (list by titles): Reports Submitted (list by titles):

SDSF Crew Work 2010 SDSF Crew Work 2010

**NOAH Fisheries Electrofishing** 

**Instream Temperature Monitoring** 

RM-39

Approved Studies Worked on (list by titles):

Santa Cruz Mountain Puma Project

Sudden Oak Death Studies (various)

Stream Flow Modeling Study

SDSF Herpetological Survey

Tick-borne Disease Research on Public Lands

Large Woody Debris Stream Habitat Restoration Project

Soquel Creek Streambank Stabilization Project

### **PERMANENT PLOTS**

	<u>Size</u>	<u>Number</u>
Inventory Plots Established	none	0
Other Plots Established	none	0
Plots Remeasured	none	0
Timber Cruised (acres):		

### **ENGINEERING**

Corners Recovered or Set: 0

Miles of Line Run: 0

Miles of Boundary Surveyed and/or posted: 0 Boundary Surveyed and Posted to Date: 14%

Soquel Station and Forest Headquarters Parcel Boundary Surveyed: completed

Boundary of Highland Way Parking Area/Right-of-Way across Burch property: completed

### **CAPITAL IMPROVEMENTS**

	New Construction	Total System	Amount
		(miles & tenths)	Maintained
Main Timber Access Roads	0	8.1	8.1
Secondary (Spur) Timber Access Roads	0	5.0	5.0
Fire Protection Roads- (included above)	0	0	0
Firebreaks	0	1.0	1.0
Christmas Tree Roads/(included above)	0	0	0
Trails	0	8.6	8.6
Powerlines	0	0	0
Telephone Lines	0	0	0
		(number)	
Bridges	0	1 (Hihn)	1
Water Development	0	1 (East well)	0
Campgrounds	0	1	1
Camping Units	0	1	1
Picnic Grounds	0	4	4
Picnic Units- tables	0	9	9
Toilets	0	1	1
Storage Containers	0	2	2

Buildings Constructed (describe each): none

### **RECREATION**

Primary Use	Day Use	Overnight Use		
	(Visitor Days)	Campers	Camper Days	
	ESTIMATED			
Camping	0	0	0	
Fishing	0	0	0	
Hunting	0	0	0	
Picnicking (see hik	king) 0	0	0	
Sightseeing (driving	g) 0	0	0	
Hiking	2,000	0	0	
Horseback Riding	25	0	0	
NatureWalks(see h	niking) 0	0	0	
Swimming	0	0	0	
Wintersports	0	0	0	
Other (specify):				
Mushroom Collect	ing 200	0	0	
Mountain Biking	12,775	0	0	
Estimated TOTAL	15,000	0	0	

## FOREST RULES

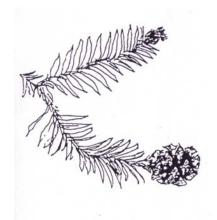
Forest Rules are designed to protect the resources and visitors of SDSF. Please help by adhering to these rules:

 To protect wildlife, and as a courtesy to others, dogs should be on a leash at all times.

FOREST

- As a safety precaution, firearms of any kind are not allowed in the Forest.
- Motorcycles or any other motorized vehicles are not permitted in the Forest.
- Respect private property by not trespassing onto adjacent private lands.
- California Fish and Game regulations prohibit fishing in the East Branch of Soquel Creek because of protection requirements.
- Smoking or fires of any kind are not allowed anywhere in the forest due to the associated fire risks.
- Day use recreation only (dawn to dusk).
   No camping is permitted.
- To help protect the Forest, horses and mountain bikes must stay on designated trails or roads.
- Please do not litter- pack out what you pack in.
- Practice Trail Etiquette. Trails and roads are for your convenience, so please be courteous to other forest users. Mountain bikers yield to horse riders and hikers, hikers yield to horse riders.
- Check signboards for any current closure

### SOQUEL DEMONSTRATION STATE



4750 Soquel-San Jose Road Soquel, California 95073 (831) 475-8643

www.fire.ca.gov www.demoforests.net State of California The Natural Resources Agency Department of Forestry and Fire Protection



SANTA CRUZ COUNTY

# DEMONSTRATION STATE FORESTS

Demonstration State Forests (DSF) are parcels of timberlands purchased by the State of California and administered by the Department of Forestry and Fire Protection (CAL FIRE). These forests are used primarily for the demonstration of sustained-yield timber management, education, research and recreation.

The DSF are healthy, active, living forests providing a variety of benefits. The forests' multiple uses conserve and protect wildlife, fisheries, vegetation, soil, watershed and aesthetic values.

## SOQUEL DEMONSTRATION STATE FOREST

Soquel Demonstration State Forest (SDSF), dedicated in 1990, is the first state forest to be added to the system since 1949. The Forest is located along the East Branch of Soquel Creek and includes portions of Amaya Creek and Fern Gulch Creek. It contains nearly 2700 acres of redwood, mixed hardwoods, riparian and chaparral ecosystems.

The State Forest is geologically active. The San Andreas and Zayante Faults pass through the property. The epicenter of the 1989 Loma Prieta earthquake is approximately 2 miles south of the Forest, in the Forest of Nisene Marks State Park.

Associated with the Forest's geologic activity are some natural springs found in closed depressions, known as sag ponds.

The SDSF is unique because it is the only State Forest located close to large urban areas (the metropolitan centers of San Francisco and Monterey Bay areas). Its proximity to these larger population centers provides excellent opportunities for "hands on" forestry education and outdoor recreation. It also demonstrates a "working forest" to the public.

## SDSF GOALS

- Restore and enhance the natural resources within the Forest, including watershed protection;
- consistent with protection of SDSF;
- Develop a forestry education program for the public, schools and interested organizations;
- Demonstrate sustained-yield timber harvesting sufficient to cover forest operations and management costs;
- Protect old-growth redwood trees;
- Research the benefits and risks of forest operations close to urban areas.

### SAFETY

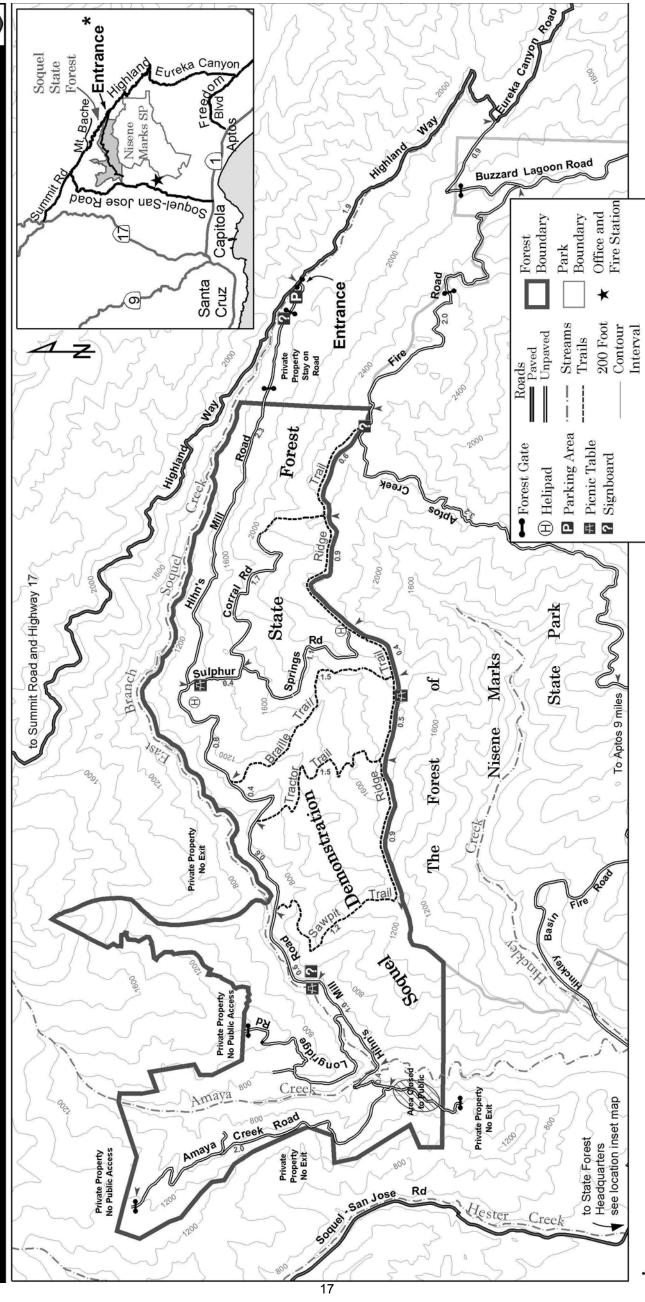
The Soquel Demonstration State Forest covers rugged terrain, in a fairly inaccessible area. Please be safety-conscious at all times. Travel with others whenever possible and let someone know of your plans.

There is no developed water source in the Forest so please bring your own drinking water with you.

CAUTION: Poison oak and ticks are common throughout the Forest.



Soquel Demonstration State Forest



The Forest entrance is located on Highland Way 6 miles east of Soquel-San Jose Road (Old San Jose Road) and 10 miles east of Highway 17. SDSF Office: (831) 475 · 8643

Mile

0.5

0.25

■ Kilometer

0 0.25 0.5

Scale 1:32,000 at 8 1/2 x 14 Revised August 2003